

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A trainable transceiver for learning signal characteristics of an RF control signal received from a remote control transmitter used to remotely actuate a device and for subsequently transmitting a modulated RF signal having the learned signal characteristics, the trainable transceiver comprising:

an antenna;

a wideband receiver coupled to the antenna, the wideband receiver configured to receive an RF control signal from the remote control transmitter, the RF control signal including a control code, a set of data characteristics and an RF carrier frequency; and

a control circuit coupled to the wideband receiver, the control circuit having a training mode in which the control circuit is configured to identify and store the control code of the RF control signal, to identify at least one data characteristic from the set of data characteristics, to determine a device type based on the at least one data characteristic and to determine ~~identify~~ at least one RF frequency associated with the RF control signal based on the determined device type ~~at least one data characteristic~~.

2. (Original) A trainable transceiver according to claim 1, wherein the control circuit is further configured to store the at least one RF frequency.

3. (Original) A trainable transceiver according to claim 1, wherein the control code is a fixed control code.

4. (Original) A trainable transceiver according to claim 1, wherein the control code is an encrypted rolling code and the control circuit is further configured to identify an encryption algorithm based on the at least one data characteristic.

5. (Original) A trainable transceiver according to claim 1, wherein the control circuit has an operating mode in which the control circuit is further configured to retrieve the control code and the at least one RF frequency and to generate an RF signal including the control code and the RF frequency.

6. (Original) A trainable transceiver according to claim 5, further including a transmitter coupled to the control circuit and the antenna, the transmitter configured to transmit the RF signal to a remotely actuate device.

7. (Original) A trainable transceiver according to claim 1, wherein the wideband receiver is a tuned wideband receiver.

8. (Currently Amended) A trainable transceiver according to claim 1, wherein a plurality of RF frequencies are determined ~~identified~~ based on the device type ~~at least one data characteristic~~.

9. (Original) A trainable transceiver according to claim 8, wherein the control circuit is configured to generate an RF signal at each of the plurality of RF frequencies.

10. (Currently Amended) A trainable transceiver for learning signal characteristics of an RF control signal received from a remote control transmitter used to remotely actuate a device and for subsequently transmitting a modulated RF signal having the learned signal characteristics, the trainable transceiver comprising:

an antenna;

a wideband receiver coupled to the antenna, the wideband receiver configured to receive an RF control signal from the remote control transmitter, the RF control signal including a control code, a set of data characteristics and an RF carrier frequency; and

a control circuit coupled to the wideband receiver and having a training mode in which the control circuit is configured to identify and store the control code of the RF control signal and having an operating mode in which the control circuit is configured to identify at least

one data characteristic from the set of data characteristics, to determine a device type based on the at least one data characteristic and to determine ~~identify~~ at least one RF frequency associated with the RF control signal based on the determined device type ~~at least one data characteristic~~.

11. (Original) A trainable transceiver according to claim 10, wherein the control code is a fixed control code.

12. (Original) A trainable transceiver according to claim 10, wherein the control code is an encrypted rolling code and the control circuit is further configured to identify an encryption algorithm based on the at least one data characteristic.

13. (Original) A trainable transceiver according to claim 10, wherein the control circuit is further configured in the operating mode to retrieve the control code and to generate an RF signal including the control code and the at least one RF frequency.

14. (Original) A trainable transceiver according to claim 13, further including a transmitter coupled to the control circuit and the antenna, the transmitter configured to transmit the RF signal to a remotely actuate device.

15. (Original) A trainable transceiver according to claim 10, wherein the wideband receiver is a tuned wideband receiver.

16. (Currently Amended) A trainable transceiver according to claim 10, wherein a plurality of RF frequencies are determined ~~identified~~ based on the device type ~~at least one data characteristic~~.

17. (Original) A trainable transceiver according to claim 16, wherein the control circuit is further configured to generate an RF signal at each of the plurality of RF frequencies.

18. (Currently Amended) A method for training a transceiver to learn a set of signal characteristics of an RF control signal received from a remote control transmitter used to remotely actuate a device, the transceiver having an antenna and a wideband receiver, the method

comprising:

initiating a training sequence;

identifying and storing a control code of the RF control signal;

identifying at least one data characteristic from a set of data characteristics for the

RF control signal; and

determining a device type based on the at least one data characteristic; and

determining identifying at least one RF frequency associated with the RF control
signal based on the determined device type at least one data characteristic.

19. (Original) A method according to claim 18, further comprising storing the at least one RF frequency.

20. (Original) A method according to claim 18, wherein the training sequence is initiated in response to the actuation of a switch.

21. (Original) A method according to claim 18, wherein the training sequence is initiated when a signal is received by the transceiver.

22. (Original) A method according to claim 18, wherein the transceiver is mounted in a vehicle and the training sequence is initiated by a message on a vehicle bus.

23. (Original) A method according to claim 18, wherein the receiver is tuned wideband receiver.

24. (Cancelled)

25. (Currently Amended) A trainable transceiver according to claim 1, wherein determining identifying the at least one RF frequency associated with the RF control signal comprises selecting the at least one RF frequency from a pre-stored list of frequencies based on the device type at least one data characteristic.

26. (Currently Amended) A trainable transceiver according to claim 10, wherein determining identifying the at least one RF frequency associated with the RF control signal comprises selecting the at least one RF frequency from a pre-stored list of frequencies based on the device type at least one data characteristic.

27. (Currently Amended) A method according to claim 18, wherein determining identifying the at least one RF frequency comprises selecting the at least one RF frequency from a pre-stored list of frequencies based on the device type at least one data characteristic.

28. (Currently Amended) A method according to claim 18, ~~further comprising:~~
identifying wherein the device type comprises a manufacturer of the device based on the at least one data characteristic, wherein device type based on the at least one data characteristic comprises determining a identifying the at least one RF frequency comprises identifying at least one RF frequency based on the manufacturer of the device and based on the at least one data characteristic.

29. (Currently Amended) A method for training a transceiver to learn a set of signal characteristics of an RF control signal, the method comprising:
initiating a training sequence;
receiving an RF control signal from a remote control transmitter used to actuate a device, wherein a wideband receiver coupled to an antenna receives the RF control signal;
identifying and storing a control code of the RF control signal;
identifying at least one data characteristic from a set of data characteristics for the RF control signal;
determining identifying a manufacturer of the device from a pre-stored list of manufacturers based on the at least one data characteristic; and
selecting at least one RF frequency from a pre-stored list of frequencies based on the determined identified manufacturer.